

TexMesonet.org



TexMesonet

An interactive mapping application for viewing a network of selected weather stations and rain gages throughout the state of Texas. The application displays current weather conditions, radar and 24 hour time series graphs.

What is a mesonet?

A **mesonet** is a network of weather stations created to collect mesoscale meteorological information.

Mesoscale is defined, for weather purposes, as systems between 3 and 60 square miles lasting for a few hours to a few days. Examples include tornadoes, thunderstorms, and hurricane eyewalls.

Why a mesonet?

- Improve weather forecasts, drought monitoring, and flood forecasting
- Provide validation for radar/satellite observations
- Enhance agricultural productivity and water conservation
- Support the wind/solar energy sectors

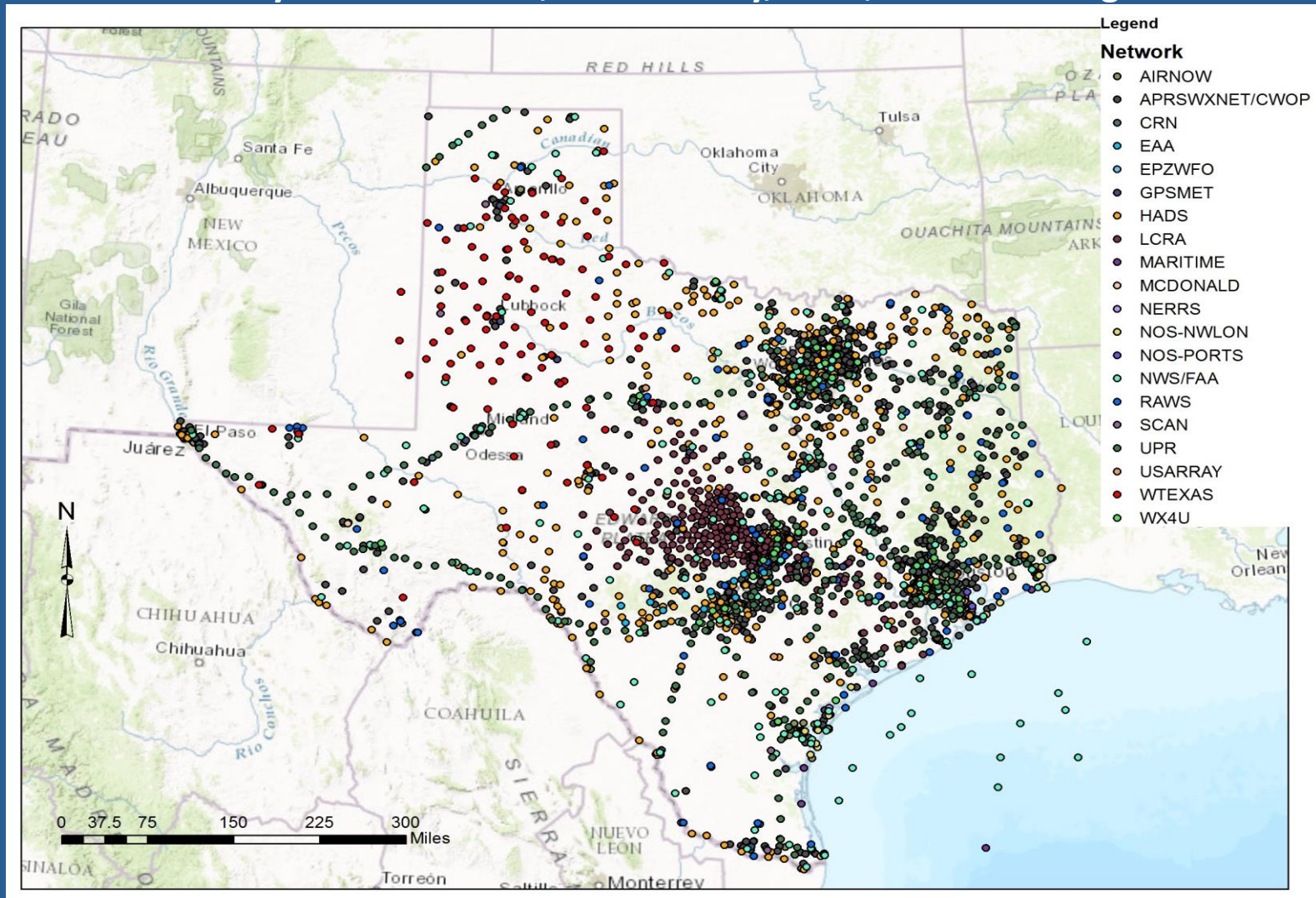
The logo for TexMESONET features a stylized orange sun with a gear-like edge on the left. To its right is a stylized orange windmill or tree-like structure. Further right, the text "TexMESONET" is displayed in a bold, sans-serif font, with "Tex" in orange and "MESONET" in dark blue. The entire logo is set against a light blue rectangular background.

TexMESONET - Goals

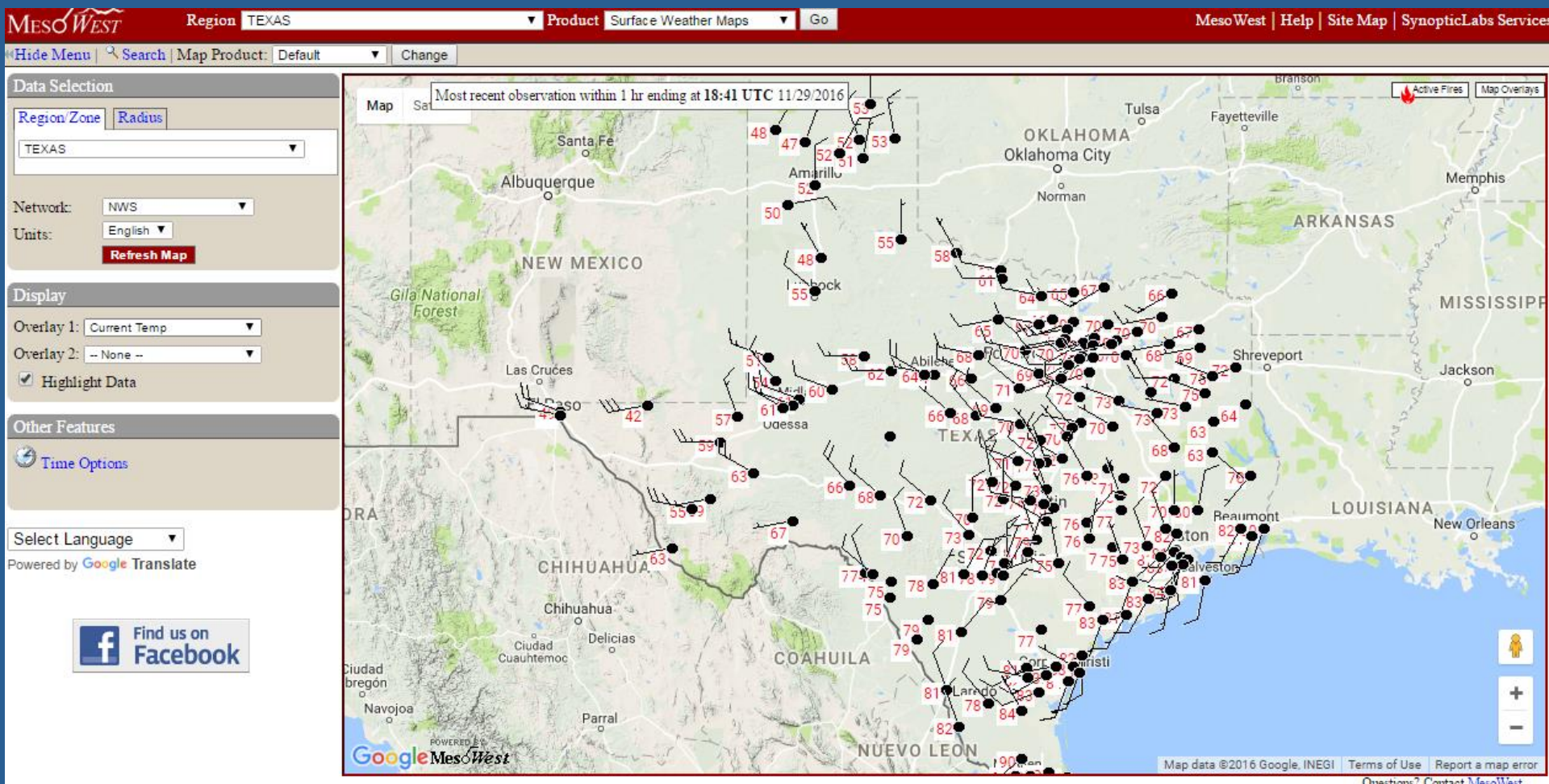
- Collect hydrological monitoring data for Texas
 - The TWDB already monitors surface water & groundwater; atmospheric and soil monitoring complete the hydrological cycle
- Network of networks through integrating existing national, regional, and local networks
- Develop a statewide mesonet
 - Manage QA/QC and metadata for partner networks
 - Deliver near-real time, quality data to forecasters, modelers, and the general public

3,045 Weather stations in Texas

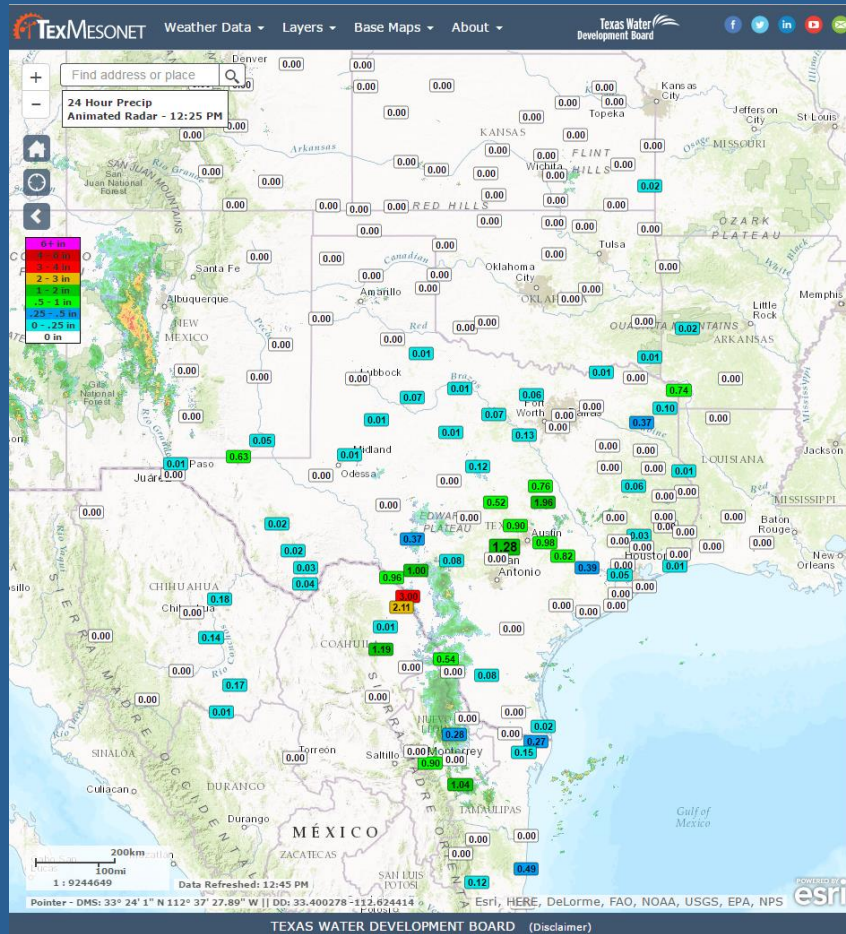
from backyard enthusiasts, to university, state, and federal agencies



Mesowest sites in Texas



1,057 TexMesonet Texas sites



2016 Viewer:

- Multiple map layers
- Tracking station data and status
- Updated station symbol look and labeling

Assembly and testing at the Lab



Site preparation

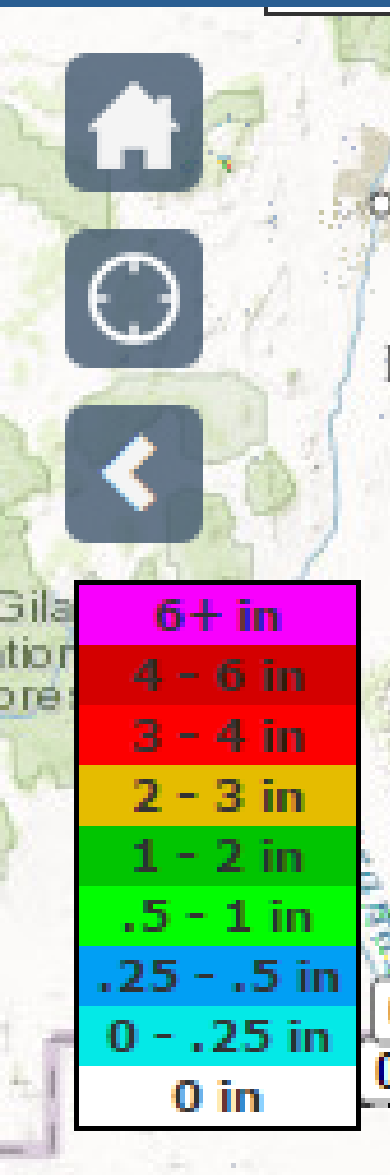


Installation...



Capturing the beautiful Texas weather





Default extent

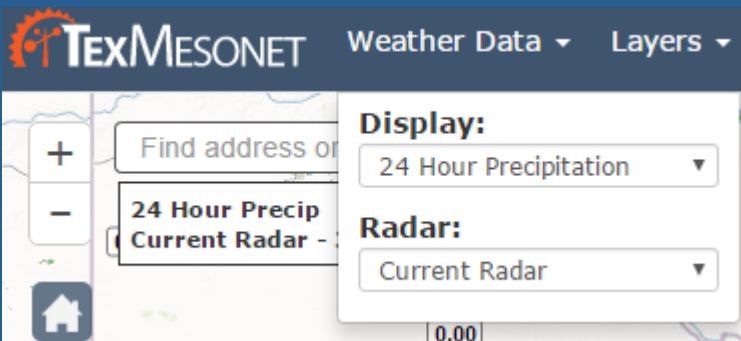
Find my location

Previous extent

Rain accumulation
color scale

- **Additional enhancements will expand the site to include:**

- Data and chart downloading and printing directly from the map
- Additional data availability through download for bulk data access
- Statewide maps showing a variety of monthly or annual averages of earth observations such as soil moisture, rainfall, and temperature.



Display and radar choices

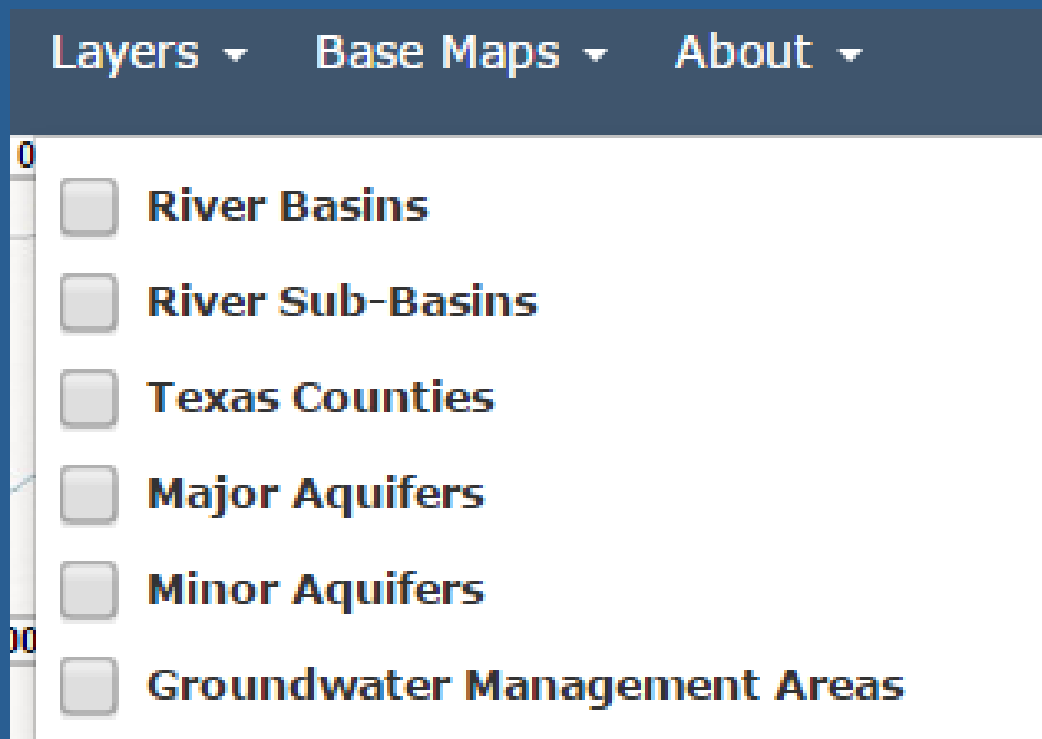
- 24 Hour Precipitation
- 48 Hour Precipitation
- 72 Hour Precipitation
- Current Temperature
- Wind Chill
- Heat Index
- Humidity
- Dew Point
- Air Pressure
- Wind
- Wind Gust
- Solar Radiation
- Station

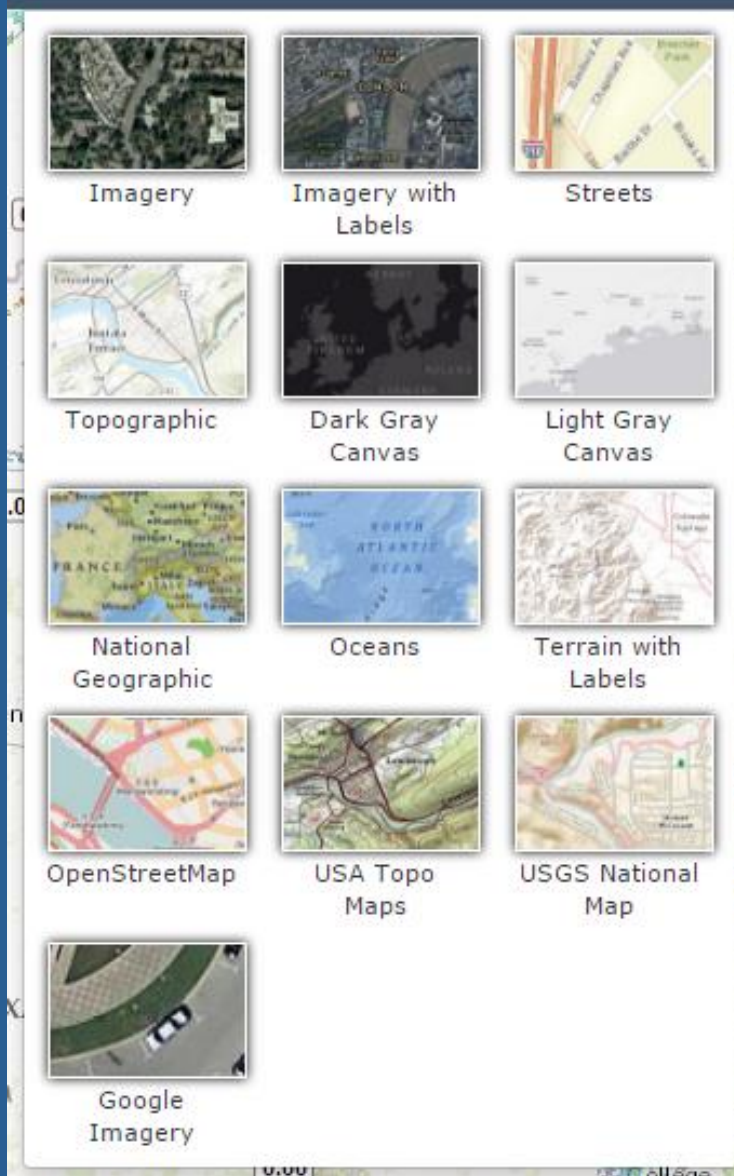
Radar Data

Display Choices:

- Current Radar
- Animated Radar
- 1 Hour Precipitation
- 24 Hour Precipitation
- 48 Hour Precipitation
- 72 Hour Precipitation

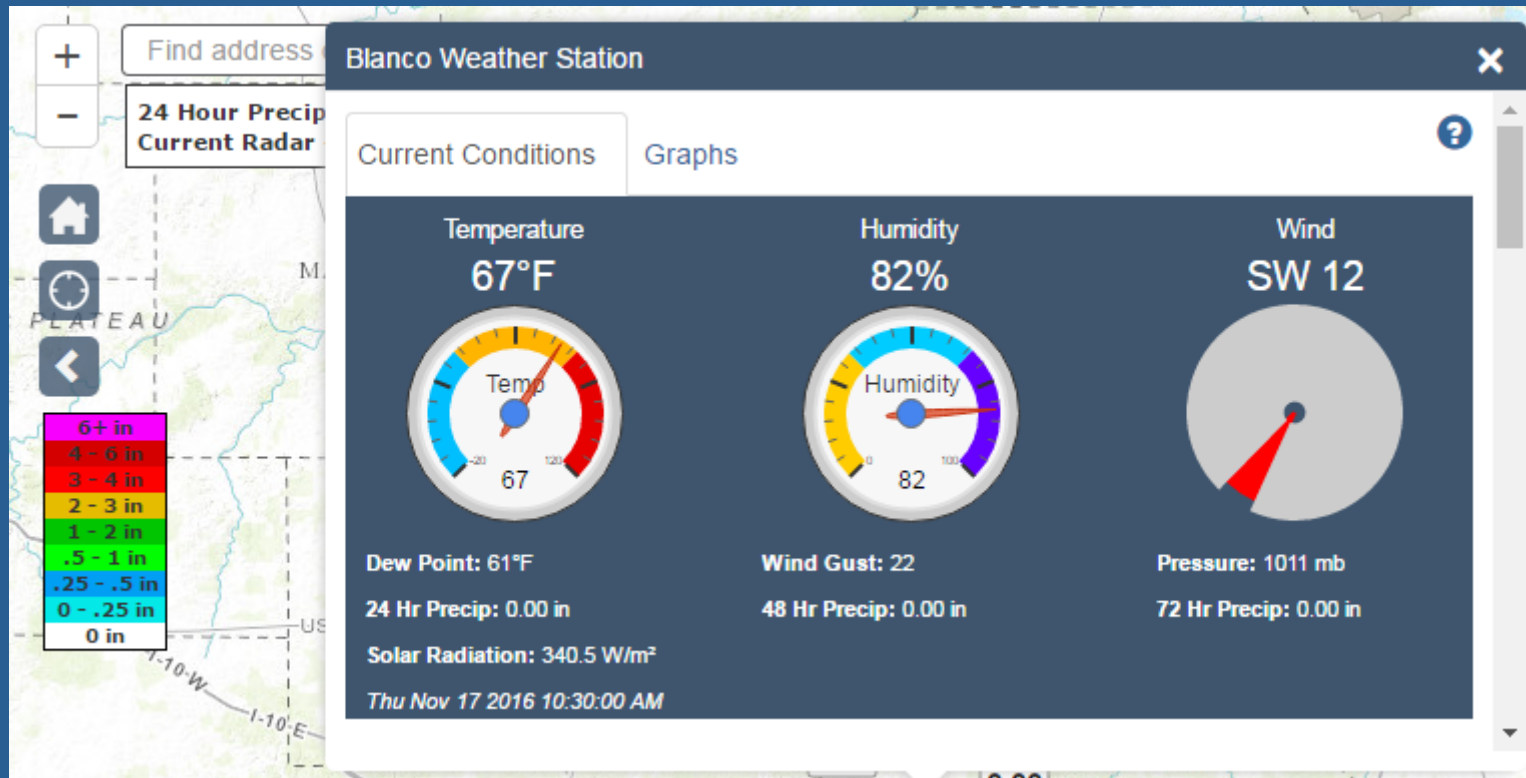
Viewer: Baseline map layers





Viewer: Map displays

Weather dashboard



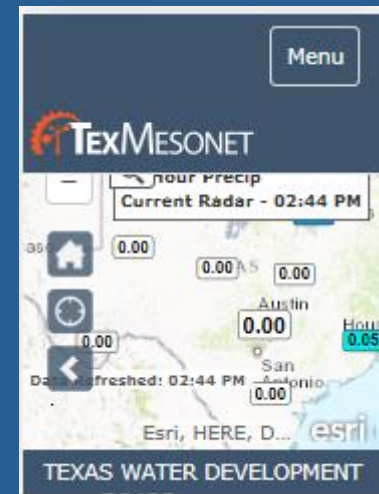
Cell phone screens



Apple 6-7 Plus



LG G3-5



Moto RAZR 3-8

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